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ABSTRACT

Social problems are manifested earlier at home and particularly on the job by alienated, depressed, estranged, dissatisfied, poorly motivated employees who steal or are frequently absent. Some say the education of the young must be specialized to ensure productivity, but emphasis on job requirements seems to be a backward view. Education should be redesigned to focus on the student's requirements, to prepare students for uncertainty, and to educate students not for others' needs, but for their own. Adaptability is the quality that will save the system that demanded specialization. The necessity of taking into account the whole person and educating that person as a whole is here. The needs of the system have undone that same system and have opened the way for the technical generalist who knows many interacting, reinforcing, technical skills and can apply them. A proposed two-year course of study for the education of a technical generalist could be adopted in home economics, business/office, marketing/distribution, and health areas. It is composed of 16 areas, each of which could be taught 6 hours per day, 5 days a week for 6 weeks. Overall evaluation by placement, self-employment, or recycling specialization and follow-up concludes the process. (YLB)

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THE EMERGENCE OF THE TECHNICAL GENERALIST

by

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THE EMERGENCE OF THE TECHNICAL GENERALIST

A Partial Answer from a Vocational Educator

There isn't time to list all the social problems that have been defined. My purpose here is to list some of them, then comment on them and if possible draw out a common thread and weave it into a solution for the problems discussed. Let's understand from the start that this presentation is an answer to some, not all, of the problems.

The Problems:

Our country, our society, many of our fellow citizens seem steeped in apathy. Outrageous political, religious, economic news is greeted with silence or cynicism. Some contend that our democratic experiment is in entropy, and dying cultures are apathetic ones. That there is great isolation, loneliness, estrangement among the members of our society is seen clearly when we examine, for instance, the statistics for just one year, 1979. There were 1,181,000 divorces, 20,678 murders, and 27,300 suicides in the U.S.A.¹ There are said to be 10 to 20 million chemically-dependent people in our society today.²

Alienation, depression, estrangement, job dissatisfaction, poor motivation end in statistics like those cited above, but are manifested earlier at home and particularly on the job. They are manifested in theft, absenteeism and sabotage. Consider

¹U. S. Statistical Abstracts

²Ramsey County, Minnesota, Mental Health Center, October, 1982.

the following: "Stealing by workers is extremely significant and permeates all aspects of the economy. It involves virtually all sectors and all levels of the corporate hierarchy, from high-level administrators through unskilled labor."³

Or that --

. . . In 1979 employee theft currently exceeds \$10 billion annually . . . one-third of all business failures are largely and directly attributable to internal theft, and on the average every adult in the United States pays an EMPLOYEE THEFT TAX of about \$200 per year as the incidence of shrinkage cost associated with stealing is shifted to the customers.

Or --

. . . about three-fourths of all⁵ inventory losses are a direct result of internal theft.

Or, we might ask why? Perryman answers,

. . . One characteristic of the contemporary work force that contributes to stealing is the boredom associated with many jobs at all levels of the corporate hierarchy. A⁶ related factor is frustration with the work environment.

Alienated, depressed, dissatisfied workers will find an outlet for this inner turmoil, and they often do it by theft.

. . . There is a direct and significant relationship between employee theft perceptions and worker alienation, that is, alienated workers are more prone to theft . . . motivated workers are less likely to steal than their peers . . . high-level satisfaction with any aspect of the work environment translates into lower propensities for internal theft.

³M. Roy Perryman, "A Neglected Institutional Feature of the Labor Sector of the U.S. Economy," Journal of Economic Issues Vol. XV, No. 2, June, 1981, p. 387.

⁴Perryman, p. 388

⁵Perryman, p. 388

⁶Perryman, p. 389

⁷Perryman, p. 391

What is the solution so often put forth to, and by, the business community? It is to spend more millions on elaborate and sophisticated security systems.

. . . Industry pays \$6.6 billion a year for security prevention programs and hardware. By 1985 security expenditures are expected to jump to \$30 billion.⁸

The policies most frequently adopted by business organizations to reduce employee theft appear capable of leading directly to its proliferation because they deal with the effect not the cause. Job-enhancement strategies, on the other hand, should reduce the aggregate propensity to steal. Common understanding has it that in round numbers, 25% of the work force will never steal; 50% won't steal if the circumstances don't permit it, and the job doesn't demand it, and the final 25% are thieves who must be weeded out. Poor communication, monotonous work and little prospect for promotion contribute to theft and often cause it. Employee theft is an inexpensive form of job enrichment.

An interesting contrast is presented when we see, " . . . estimates of internal theft range from \$4 billion a year to \$44 billion . . . by contrast street crime totaled \$4 billion a year."⁹

It is a negative national transfer of wealth ". . . internal theft amounts to nearly 1.3% of our gross national product."¹⁰

⁸Richard F. Tersine and Roberta S. Russel, "Internal Theft: The Multi-Billion Dollar Disappearing Act," Business Horizons, Vol. 24, No. 6, Nov-Dec, 1981, p. 11

⁹Tersine, p. 11

¹⁰Tersine p. 12

The often-heard rationale for theft is that everyone else is doing it. But, practice doesn't sanctify any act even if honesty is often intolerable in a dishonest environment. Stealing satisfies other than monetary needs, ". . . it serves the same purpose as sabotage and yields more personal benefits."¹¹

Stealing is an attractive rational option for the typical alienated, depressed, estranged, dissatisfied, poorly-motivated employee. How about absenteeism? ". . . during a typical week, about 5 million workers are absent from their jobs."¹²

Or, consider that,

. . . American workers with full-time wage and salary jobs lost about 95 million hours a week in May, 1979. The percent of time lost fluctuated from 3.3% to 6.7% from 1973 to 1979."

In addition to this,

. . . the individual who feels discouraged about his work . . . is frequently absent, and displays aggressions will be more likely to steal.¹³

By 1983, ". . . the annual bill for pilferage will come to \$53.7 billion."¹⁴

It has been stated that one hour of absence is equivalent to 2½ hours of production cost increases, and employee

¹¹Tersine, p. 15

¹²Carol Boyd Leon, "Employed but Not at Work: A Review of Unpaid Absences," Monthly Labor Review, Nov. 1981, p. 18.

¹³Mortimer R. Feinberg, Ph.D., "Employee Stealing on the Rise," Restaurant Business, Feb., 1982, p. 92.

¹⁴Feinberg, p. 92.

dissatisfaction, absenteeism and theft result in turnover costs which range from \$500 to \$7,000 per terminated employee, depending on the employee's place in the hierarchy.

The employees' needs will be met, and it seems reasonable to suppose that in doing so the employer's needs could also be met and some employee loyalty developed. There is, however, another curious aspect to the situation which gives pause and leads to hushed knowing discussion. This is pointed out in the article by Lawrence R. Zeittin, "A Little Larceny Can Do A Lot for Employee Morale." His studies reveal that in the retail business, ". . . internal losses outweigh external losses three to one. That is, the store's employees steal three times as much as do shoplifters."

Why does the dishonest worker spend so much energy figuring out ways to steal from his employer? . . . Most retail jobs are repetitive and boring. Advancement is limited, the typical worker has little freedom of action or decision-making autonomy. . . . Employee dissatisfaction is rife, and turnover is relatively high. . . . When the average retail employee becomes dissatisfied with his job, if he doesn't quit, he starts stealing . . . he gets back at the system. . . . The intellectual and physical challenges provided by opportunities to steal represent a significant enrichment of the individual's job. He can take matters into his own hands, assume responsibility, make decisions and face challenges. The amount he gets away with is determined solely by his own initiative."¹⁶

The dishonest worker is enriching his own job in a manner that is very satisfactory (for him). This enrichment is costing management on the average \$1.50 per worker per day. At this rate, management gets a bargain. By permitting a

¹⁵ Lawrence R. Zeittin, "A Little Larceny Can Do A Lot for Employee Morale," Psychology Today, June, 1971, p. 22.

¹⁶ Zeittin, p. 24.

controlled amount of theft,¹⁷ management can avoid reorganizing jobs and raising wages.

Theft serves as a safety valve for employee frustration. It permits management to avoid the responsibility and the cost of job enrichment or salary increases at a relatively low amount of money per man.¹⁸

Uncontrolled theft can be disastrous for any business concern but controlled theft can be useful. Employee theft used as a motivational tool can be an economic benefit to the organization.¹⁹

This curious state of affairs surely does exist. It is difficult to see how to control the amount of theft, when the amounts reach the \$44 billion-dollar level. When this happens, one must question the practice and its acceptance. It says much about all of us, and we must remember that practice doesn't excuse anything, even tolerable theft.

The very view we take of ourselves and each other as a god or a grunt determines expectations and often performance. Many see themselves controlled and manipulated, locked in dead-end jobs in an administered labor market. There are calls for greater productivity, greater industrial discipline and greater conformity, coupled with demands for concessions and retrenchment in expectations. There is grinding frustration at being told that you are the problem and the solution. Self-interest is for the entrepreneur, not the worker. At one end of the spectrum, we have workaholics limited in everything except

¹⁷Zeittin, p. 26

¹⁸Zeittin, p. 64

¹⁹Zeittin, p. 64

guilt complexes. On the other end, thieves, saboteurs and alcoholics. Buzzing around, behind and on these, are those who hustle, pimp and push to survive. Cosmetic change by rigid intrenched interests masks authoritarianism, stifles growth and preserves the status quo. We are blinded by the tyranny of the short-term goal. We have become automatons in a pool. This is a bleak picture with bleak prospects for many.

Shall we do nothing and insure more of the same? Shall we redesign ourselves, our system? Where shall we begin? What do people say?

Some say we must specialize the education of the young so as to insure productivity. We must make education conform to market realities. High standards of living bring along with them high rates of cancer, pollution and crime. It must be acknowledged that education is controlled by the controllers of society, not the educators. It is the industrial order that molds the plastic generations. It doesn't matter whether work is pleasant or unpleasant; it's just that the burden increases with the quantity of work and ultimately it's only performed for the income it yields. Much of the work done today is easy, dull, monotonous, mechanical, undemanding and demeaning in lack of challenge. Is it any wonder that it has produced in some workers passivity, in others rebellion?

Life without purpose beyond securing minimum discomfort and maximum leisure yields no positive good. It's a zero-sum game. More and more in our society comes the realization that the gain of production is not mutually distributed. The call

today is for increased productivity through increased specialization and increased monotony. Nobody believes in it anymore -- earnestness, zealousness, punctuality, thrift, dedication to toil -- toward what end? Greater productivity? Technical innovation reduces the need for human skill. The monotony in mass production has produced monotonous products which we dispense with, with ever-increasing frequency.

What does the student need? Compression to fit the mold of short-term market demand? Old specialists have become generalists over a lifetime because science and technology have rendered their specialties obsolete. Are students a commodity like other commodities to be used, or are they something greater? Is education short-term or long-term goaling? The market place is controlled by the myopic view. Could this be why there is severe disquiet there? What are the job requirements -- this seems to be a backward view. Should it not be what are the student's requirements?

People resist depersonalization and conforming to segmented roles. Students are whole persons and must be treated as such; if not, this division of person will result, and has resulted in, ill-health, alienation, frustration, anger, and, in the eyes of some, the most calamitous event of all, lower production. What's to be done? Nothing, and insure more of the same, or redesign jobs and work organizations? Is this possible?

It is possible if you first redesign education. We must, and we must educate for uncertainty. A look at today's surplus of unemployed specialists tells us that. The same forces that

control industry control education. Is it possible to change the education of students and thus change the status quo? Yes, if something other than specialized task competency is taught. Yes, if we free up the curriculum and the school day. Yes, if we practice democracy in education. Yes, if we let ethics into education. Yes, if we bring responsible freedom in as an organizing concept, not for division and dissolution, but for unity.

Many of today's managers are seen for what they are -- tinkers, fiddling, manipulating, hesitant, cautious, and most often, immobile. They attempt to fine-tune the system, not change it. Students educated in specialities know they are being short-changed, meeting others needs. They are not being freed up but molded. Our society will not survive with vast numbers trammled. Today there is much talk about the lack of full employment of plant capacity. Little is said about the full employment of people's talents. The painful irony here is that those who can think cannot act, and those who can act cannot think. We must not educate students for others' needs, but for their own, for their self-actualizing. The call of today's power brokers is one of irrationalism and confusion. They see others in terms of themselves, one-dimensional. People become instruments to be used, not free men and women to grow. It gets worse when exploitation is cloaked in objective rationality, and the technological veil conceals inequality and enslavement. Control and determinations are made, the exploited outsiders, the unemployed and unemployable

are stratified in a rigged game. Scientific, technical rationality and manipulation bring out new forms of social control. Today's example is the call by some congressmen for a national internal identification system (an internal passport) ostensibly needed to control illegal aliens. Today, in far too many cases, scientific engineering and administration have replaced constitutional rights and moral authority. Manipulation and psychological persuasion replace overt coercion where uncontrolled exterior forces are blamed. The anonymous "they" can't be questioned. This is not lost on the young.

Today's youth reject the nose-to-the-grindstone philosophy. They have seen the immorality and misuse of power and know who wields it. They know they must work within the system by making the best deal possible in a system where it's still greatest output over least cost. They know that jobs control, and they know they are in a dependent position. They see in education the only hope of opening up their options. This is true, if the education is open, if it has its own direction and control. The reward of education is intrinsic with extrinsic application. We must question a culture where there is no intrinsic save what is manipulated from without. The young person knows that the system only needs part of him, so he tries to beat the system. As the technology brings in machines to replace men (who often simulate machines), the problem is compounded. What shall we do with a person specialized in only one function? We look at that quality ignored and bypassed on the road to specialization, the

quality that will ultimately save the system -- man's adaptability. Fixed work roles will pass and, irony that it is, the specialization of tasks that created the need for the technological machine to replace men, creates in turn the demand for the generalist needed to run the system. Full circle, back to men and women who must know many things, be active in the enterprise, decisions, share profits and have freedom of employment. Specializations' necessity has brought about the demise of the specialist and brought us back to dealing with the problems (mentioned above) created by the specialization of work roles.

The necessity of taking into account the whole person and educating that person as a whole is here, not because of humanitarian or moral imperatives, but practical necessity. The technology won't work without the many-sided talents, skills and knowledge of the most adaptable people we can educate. The more adaptable they are, the more employable they become, the greater their contribution, and, in turn, the greater their rewards and satisfactions. The needs of the system have undone the system and opened the way for the technical generalist, the master technician who knows many interacting reinforcing technical skills and can apply them. The technical generalist, the master technician will bring more to his employment and take more away from it.

What does the technical generalist need to know? He needs to know specifications, layout, fabrication, framing, tools, interpretation of drawings, surveying, measurements and calculations, systems, task analyses, geometric construction,

machining, design, electricity, electronics, tool, die and mold-making, sheet metal, welding, electro-mechanical technology, machine tool process, painting, wood working, carpentry, hydraulics and pneumatics, pipefitting, masonry, plumbing, and this technical generalist, this master technician must be able to communicate.

Is this possible? It is! If we teach individuals in a multi-perspective manner so that they, by producing their own synthesis, gain a wide understanding in a multitude of skills, thus expanding their practical adaptability, and in turn solving some of the societal problems which at present seem beyond solution. The technical generalist would know more, be more employable, be able to use more skills, have greater adaptability and higher motivation. This technical generalist would need less retraining and make a greater contribution to our society.

An example of a two-year course of study for the education of a technical generalist follows:

It should be noted that this course of study could be adopted in Home Economics, Business/Office, Marketing/Distribution and Health areas.

The proposed two-year program of study is made up of sixteen areas which would be taught six hours per day, five days a week for six weeks. Every six weeks or 180 hours, the student would change course areas, transferring the skills/knowledges and relating them to the new area. The process would continue for 96 weeks. Evaluation, transfer and reinforcement

of knowledge in one area would be keyed into the next area. Overall evaluation of the 96 weeks by placement, self-employment or recycling specialization and follow-up conclude the process. The initial sixteen areas are:

Carpentry	Electronics
Cabinet-making	Electro-Mechanical Technology
Masonry	Welding
Painting and Decorating	Machine Tool Process
Plumbing	Tool, Die and Mold
Drawing	Sheet Metal
Design Technology	Pipefitting
Electricity	Fluid Power Hydraulics & Pneumatics

The students would begin the school day at 6:00 a.m., and end at 12:00 noon. This would allow the vocational school to conduct the traditional program from 12:00 Noon to 6:00 p.m., and the evening and/or extension program from 6:00 p.m. to 10:00 p.m. Further, it would allow the technical generalist student to work outside of school (another benefit in a declining labor force).

It is this educator's conviction that the student that is prepared in a wide variety of skills will not be alienated or apathetic, that this student won't be an anti-social isolationist given to theft and absenteeism, that this student will, all in all, make a greater contribution and be more productive all his life.

There is still a need for the specialist and a place for them, but not all must be specialists. If a person chooses to be a specialist, so be it. Let it be his or her choice.

Similarly, let's open up the field so that the same person can be a generalist if he/she chooses to be.

The type of study recommended here will open up education, open up options and free up men and women. It is a partial answer, and it needs doing.

Dr. Collins is a teacher/administrator with twenty years of experience in general and vocational education in the public and private high schools and colleges of Minnesota. Currently he is an instructor in technical writing at the St. Paul Technical Vocational Institute in Saint Paul, Minnesota.